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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,441	08/13/2001	John Mellert	033337/0132	4179
22428	7590	05/16/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			TRAN, DZUNG D	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/927,441

Applicant(s)

MELLERT ET AL.

Examiner

Dzung D. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Specification***

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugiyama US patent no. 5,883,735.

Regarding claims 1 and 14, Sugiyama, in figure 13, discloses a method for communicating control information between an optical amplifier repeater 11 (same as line unit) and a end office A, end office B (same as terminal unit) in an optical communication system (figure 13) comprising the steps of:

transmitting, from a end office A, end office B (same as terminal unit), a command signal CM, CM' (same as control information) on a selected optical fiber 12 (col. 3, lines 59-62, col. 4, lines 1-6);

receiving and decoding at least some of said control information at a first supervisory unit 38 (same as control unit) of said line unit (col. 4, lines 34-39); and

sending control information from first supervisory unit 38 to a second supervisory unit 38' over a LB cable within said line unit 11 (e.g., figure 14 clearly shown first supervisory unit 38 receives information signal which is filtered by filter 37 and send the

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information signal to a second supervisory unit 38' over a LB cable), the second supervisory unit 38' decodes said control information CM' and performs a response signal RS (equivalent to command) based on said control information (col. 5, lines 12-15; col. 8, lines 23-28).

Regarding claim 2, Sugiyama further discloses control information is a command to measure a power of one of the first and second pump lasers 33 and 33' (col. 10, lines 30-67).

Regarding claims 3 and 4, Sugiyama discloses first control unit 38 is connected to first pump laser 33 and adjusts a bias current associated with first pump lasers 33 based on said demodulated first control information and a power of an optical signal transmitted over one of said first and second optical fibers 12 and 12' (col. 10, lines 30-55).

Regarding claim 5, Sugiyama further discloses first supervisory unit 38 comprises: a first demodulating unit 382 of figure 11 (col. 10, lines 35-36) for demodulating the first command signal (same as first control information signal) from the first optical signal (from optical line 12).

Regarding claim 6, Sugiyama further discloses the steps of decoding, at said first control unit 38, at least a portion of an address associated with said control information and broadcasting said control information to a plurality of additional control units within said line unit, said plurality of additional control units including said second control unit (col. 4, lines 34-39, col. 10, lines 30-55).

Regarding claim 7, Sugiyama further discloses the system having a plurality of communication paths (12, 12') between an optical amplifier repeater 11 (same as line unit) and a end office A or end office B (same as terminal unit); selecting one of said plurality of communication paths 12, 12' between said line unit 11 and said terminal unit (end office A or end office B) for use in transmitting command signal CM, CM' (same as control information) (for example, control information CM is transmitted over path 12 or control information CM' is transmitted over path 12');

transmitting command signal CM, CM' (same as control information) using said selected path 12 or 12' until a predetermined fault characteristic is detected (col. 8, lines 9-28); and

selecting another path 12' of said plurality of communication paths 12, 12' for transmitting command signal CM or CM' after said predetermined fault characteristic is detected (col. 8, lines 9-28) (e.g., the control information is sent from said first control unit 38 through said second control unit 38' to communication path 12' over a bidirectional loop-back cable LB when the failure to be located on communication path 12).

Regarding claim 8, Sugiyama further discloses each of said plurality of communication paths 12 and 12' includes a different optical fiber (figure 14).

Regarding claim 9, Sugiyama further discloses first supervisory unit 23 comprises: a first demodulating unit 382 of figure 11 (col. 10, lines 35-36) for demodulating the first command signal (same as first control information signal) from the first optical signal (from optical line 12).

Regarding claim 10, Sugiyama further discloses the first supervisory unit 38 for decoding command signal CM (same as control information) and selectively performing an operation associated therewith (col. 4, lines 34-39, col. 10, lines 30-55).

Regarding claim 11, Sugiyama further discloses a plurality of line unit (11 of figure 13), therefore, it would have a plurality of supervisory unit 38 per transmission path.

Regarding claim 12, Sugiyama further discloses an address associated with said line unit, terminal unit, an operation code associated with an operation to be performed (col. 10, lines 43-46).

Regarding claim 13, Sugiyama further discloses control information is a command to adjust a bias current of one of said at least one first and said at least one second pump lasers (col. 10, lines 30-55).

Regarding claim 15, Sugiyama further discloses group of pump lasers 33, 33' which pump an optical data signal transmitted between said terminal unit and said line unit (figure 14).

Regarding claims 16 and 17, Sugiyama further discloses a plurality of said group of devices (24, 33 and a corresponding plurality of said at least two control units 38, 38', said method further comprising the step of:

addressing, by said terminal (end office A), a command to control (CM) a particular device 33 within one of said groups device to a corresponding one of said at least two control units 38, 38' and receive said address command by a control unit 23

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within said line unit 11 which is different than said corresponding one of said at least two control units 38, 38' and forwarding said addressed command thereto.

Regarding claim 18, Sugiyama further discloses for selecting another path 12' of said plurality of communication paths 12, 12' for transmitting command signal CM or CM' after said predetermined fault characteristic is detected (col. 8, lines 9-28) (e.g., the control information is sent from said first control unit 38 through said second control unit 38' to communication path 12' over a bidirectional loop-back cable LB when the failure to be located on communication path 12) and transmitting command signal CM, CM' (same as control information) using said selected path 12 or 12' from the terminal unit (i.e., end office A or end office B).

### ***Response to Arguments***

3. Applicant's arguments filed on 11/24/2004 have been fully considered but they are not persuasive.

#### **A Rejection of claims 1-18 under USC § 102(b) as being anticipated over Sugiyama et al. U.S. patent no. 5,883,735.**

Applicant argues that Sugiyama reference fails to teach that "sending said control information from said first control unit to said second control unit and said second control unit decodes said control information and performs a command based on said control information" in claim 1. However Sugiyama clearly discloses in figure 14, the first and second supervisory unit 38, 38' (same as control unit) are connected to a

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bidirectional loop-back cable LB such that the control information is sent from said first control unit 38 through said second control unit 38' to communication path 12' when the failure to be located on communication path 12. Sugiyama further discloses the second supervisory unit 38' decodes said control information CM' and performs a response signal RS (equivalent to command) based on said control information (col. 5, lines 12-15; col. 8, lines 23-28).

Applicant further argues that Sugiyama reference fails to teach "transmitting control information between a line unit and a terminal unit and selecting another of said plurality of communication paths for transmitting said control information after said predetermined fault characteristic is detect" in claim 7. However Sugiyama clearly discloses in figure 13 for transmitting command signal CM, CM' (same as control information) using said selected path 12 or 12' between line unit 11 and terminal unit (end office A or end office B) and selecting another path 12' of said plurality of communication paths 12, 12' for transmitting command signal CM or CM' (same as control information) after said predetermined fault characteristic is detected (col. 8, lines 9-28) (e.g., the control information is sent from said first control unit 38 through said second control unit 38' to communication path 12' over a bidirectional loop-back cable LB when the failure to be located on communication path 12).



***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran  
05/03/2005



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